

Serial No.: 09/897,465
Amendment dated 12 September 2003
Reply to Office Action mailed 12 March 2003

AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions, including listings, of claims in the application.

Listing of Claims

Claim 1 (currently amended): A method for treating disorders regulated at $\alpha 7$ or $\alpha 3\beta 2$ neuronal nicotinic acetylcholine receptors (nAChRs) which comprises administering to a patient in need of such treatment a therapeutically effective amount of an α -conotoxin peptide having the ~~general~~ formula Gly-Cys-Cys-Ser-Leu-Pro-Pro-Cys-Ala-Leu-Asn-Asn-Pro-Asp-Tyr-Cys (SEQ ID NO:10)

~~Xaa₁-Xaa₂-Cys-Cys-Xaa₃-Xaa₄-Pro-Xaa₅-Cys-Xaa₆-Xaa₇-Xaa₈-Xaa₉-Xaa₁₀-Xaa₁₁-Xaa₁₂-Cys~~ (SEQ ID NO:1)

wherein ~~Xaa₁ is des-Xaa₁, Tyr, mono-iodo-Tyr or di-iodo-Tyr, Xaa₂ is any amino acid, Xaa₃ is any amino acid, Xaa₄ is any amino acid, Xaa₅ is any amino acid, Xaa₆ is any amino acid, Xaa₇ is any amino acid, Xaa₈ is any amino acid, Xaa₉ is des-Xaa₉ or any amino acid, Xaa₁₀ is des-Xaa₁₀ or any amino acid, Xaa₁₁ is des-Xaa₁₁ or any amino acid and Xaa₁₂ is des-Xaa₁₂ or any amino acid or a pharmaceutically acceptable salt thereof, with the proviso that when the disorder is small cell lung carcinoma, then the α -conotoxin peptide is not a peptide having an amino acid sequence set forth in SEQ ID NO:2 or SEQ ID NO:13.~~

Claim 2 (canceled).

Claim 3 (original): The method of claim 1, wherein said disorder is a cardiovascular disorder.

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Claim 4 (original): The method of claim 1, wherein said disorder is a gastric motility disorder.

Claim 5 (original): The method of claim 1, wherein said disorder is urinary incontinence.

Claim 6 (original): The method of claim 1, wherein said disorder is nicotine addiction.

Claim 7 (original): The method of claim 1, wherein said disorder is a mood disorder.

Claim 8 (original): The method of claim 1, wherein said disorder is small cell lung carcinoma.

Claims 9-12 (canceled).

Claim 13 (currently amended): The method of claim 1 ~~12~~, wherein at least one of the Pro residues is replaced with hydroxyproline.

Claim 14 (currently amended): The method of claim 1 ~~12~~, wherein a Tyr residue, a mono-iodo-Tyr residue or a di-iodo-Tyr residue is added to ~~incorporated on~~ the N-terminus of said α -conotoxin, wherein said residue is the N-terminus.

Claim 15 (currently amended): The method of claim 14, wherein said residue is a ~~the~~ Tyr residue ~~is substituted with one or two iodines.~~

Claims 16-18 (canceled).

Claim 19 (new): The method of claim 14, wherein said residue is a mono-iodo-Tyr residue.

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Claim 20 (new): The method of claim 14, wherein said residue is a di-iodo-Tyr residue.

Claim 21 (new): The method of claim 13, wherein said disorder is a cardiovascular disorder.

Claim 22 (new): The method of claim 13, wherein said disorder is a gastric motility disorder.

Claim 23 (new): The method of claim 13, wherein said disorder is urinary incontinence.

Claim 24 (new): The method of claim 13, wherein said disorder is nicotine addiction.

Claim 25 (new): The method of claim 13, wherein said disorder is a mood disorder.

Claim 26 (new): The method of claim 13, wherein said disorder is small cell lung carcinoma.

Claim 27 (new): The method of claim 14, wherein said disorder is a cardiovascular disorder.

Claim 28 (new): The method of claim 14, wherein said disorder is a gastric motility disorder.

Claim 29 (new): The method of claim 14, wherein said disorder is urinary incontinence.

Claim 30 (new): The method of claim 14, wherein said disorder is nicotine addiction.

Claim 31 (new): The method of claim 14, wherein said disorder is a mood disorder.

Claim 32 (new): The method of claim 14, wherein said disorder is small cell lung carcinoma.